



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

*Frank O'Bannon*  
Governor

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Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

Mr. Ron McCoy  
BorgWarner DTP Inc.  
5401 Kilgore Avenue  
Muncie, Indiana 47304

Re: **035-16121-00020**  
First Significant Source Modification to:  
Part 70 Operating Permit No.: **T 035-7410-00020**

Dear Mr. McCoy:

BorgWarner DTP Inc. was issued Part 70 Operating Permit T 035-7410-00020 on September 24, 1998 for an automobile transfer cases manufacturing source. An application to modify the source was received on June 14, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission unit is approved for construction at the source:

One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British thermal units per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This Significant Source Modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 Operating Permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 20 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
EAL/MES

cc: File - Delaware County  
Delaware County Health Department  
Air Compliance Section Inspector - Warren Greiling  
Compliance Branch - Karen Nowak  
Administrative and Development - Lisa Lawrence  
Technical Support and Modeling - Michele Boner



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## **PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY**

**BorgWarner DTP Inc.  
5401 Kilgore Avenue  
Muncie, Indiana 47304**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Significant Source Modification 035-16121	Sections Affected: A.2, D.1; Quarterly Report Forms
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 4, 2002

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### Report Form

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary automobile transfer cases manufacturing plant.

Responsible Official: Vice President of Operations  
Source Address: 5401 Kilgore Ave., Muncie, Indiana, 47304  
Mailing Address: 5401 Kilgore Ave., Muncie, Indiana, 47304  
SIC Code: 3714  
County Location: Delaware County  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source, under PSD Rules;

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (1) Two (2) 68.75 million Btu per hour boilers, identified as Boiler 3 and Boiler 4, using natural gas, No. 6 residual oil and No. 2 distillate oil, for fuel, with no control, and Boilers 3 and 4 exhausting to stack 80.
- (2) One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British thermal units per hour.
- (3) One (1) Diesel fueled internal combustion engine-driven test cell, with a capacity of 400 Horsepower, identified as Dynos-2, and exhausting to stack 192.
- (4) Three (3) gasoline fueled internal combustion engine-driven test cells, with a combined capacity of 963 Horsepower, identified together as Dynos-1, and exhausting to stacks 194 and 202.

### A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

### A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (1) Two (2) 68.75 million Btu per hour boilers, identified as Boiler 3 and Boiler 4, using natural gas, No. 6 residual oil and No. 2 distillate oil, for fuel, with no control, and Boilers 3 and 4 exhausting to stack 80.
- (2) One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-7] [326 IAC 2-2] [40 CFR 52.21]

- (a) The input of No. 6 oil to the one (1) boiler, identified as Boiler 5, shall be limited to less than 994,000 gallons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, which is equivalent to SO<sub>2</sub> emissions of less than 39.0 tons per year.
- (b) For purposes of determining compliance based on SO<sub>2</sub> emissions, each gallon of No. 2 oil shall be equivalent to 0.9045 gallons of No. 6 oil.
- (c) Compliance with the limit in (a) renders the requirements of 326 IAC 2-2 not applicable.

#### D.1.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the one (1) boiler, identified as Boiler 5, except when otherwise specified in 40 CFR 60 Subpart Dc.

#### D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) the SO<sub>2</sub> emissions from the two (2) 68.75 MMBtu per hour boilers shall not exceed:

- (a) One and six-tenths (1.6) pounds per MMBtu heat input when using No. 6 residual oil for fuel; and
- (b) Five-tenths (0.5) pounds per MMBtu heat input when using No. 2 distillate oil for fuel.

#### D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 12-1] [40 CFR 60.40c]

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

- (a) The SO<sub>2</sub> emissions from the one (1) boiler, identified as Boiler 5, when combusting fuel oil, shall not exceed five tenths (0.5) pounds per million Btu heat input; or
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

**D.1.5 Particulate Matter (PM) [326 IAC 6-2-3]**

Pursuant to 326 IAC 6-2-3 (Particulate Emissions Limitations for sources of Indirect Heating), the PM emissions from Boilers 3 and 4 shall be limited to 0.295 pounds per million Btu.

**D.1.6 Particulate Matter (PM) [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983), the PM emission rate from the one (1) boiler, identified as Boiler 5, shall not exceed 0.280 pounds per million British thermal units, based on a total source heat input capacity of 186.3 million British thermal units per hour.

The emission limitation is based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

**D.1.7 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.40c]**

Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc), the Permittee, when burning No. 2 or No. 6 oil, shall not cause to be discharged into the atmosphere from Boiler 5 any gases which exhibit 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

**Compliance Determination Requirements**

**D.1.8 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR 60.45c]**

Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.45c, Subpart Dc), within 180 days of the date that fuel oil is first combusted in the boiler, the Permittee shall perform an initial compliance test to determine compliance with the opacity limitation for the one (1) boiler, identified as Boiler 5, when combusting fuel oil. Testing shall be conducted in accordance with 40 CFR 60.8, 40 CFR 60.45c, and Section C- Performance Testing.

**D.1.9 Sulfur Dioxide Emissions and Sulfur Content**

Compliance for the two (2) boilers, identified as Boiler 3 and Boiler 4, shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur content does not exceed 1.52 percent by weight for No. 6 fuel oil and 0.5 percent by weight for No. 2 fuel oil by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel

tank is filled and before any oil is combusted; and

- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the two (2) 68.75 MMBtu per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.10 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance for the one (1) boiler, identified as Boiler 5, utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
  - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

##### D.1.11 Visible Emissions Notations

- (a) Visible emission notations of the boiler stack exhausts shall be performed once per shift during normal daylight operations when any boiler is combusting No. 6 or No. 2 fuel oil when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.1.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1, D.1.3 and D.1.4, the Permittee shall maintain records in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit for Boiler 5 applies at all times including periods of startup, shutdown, and malfunction.
- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel usage of each fuel used since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.11, the Permittee shall maintain records of once per shift visible emissions notations when combusting No. 6 or No. 2 fuel oil in any boiler.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.13 Reporting Requirements**

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- (a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) A certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34);
- (c) The semi-annual natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported.

#### D.1.14 NSPS Reporting Requirement

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Pursuant to the New Source Performance Standards (NSPS), Part 60.40c, Subpart Dc, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) Commencement of construction date (no later than 30 days after such date);
- (b) Actual start-up date (within 15 days after such date); and
- (c) Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.

Reports are to be sent to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

The application and enforcement of these standards have been delegated to the IDEM OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: BorgWarner DTP Inc.  
Source Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
Mailing Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
Part 70 Permit No.: T 035-7410-00020  
Facility: Boiler 5  
Parameter: Total No. 6 fuel oil input (SO<sub>2</sub>)  
Limit: Less than 994,000 gallons, or equivalent, per twelve (12) consecutive month period, equivalent to SO<sub>2</sub> emissions of less than 39.0 tons per year. For purposes of determining compliance based on SO<sub>2</sub> emissions, each gallon of No. 2 oil shall be equivalent to 0.9045 gallons of No. 6 oil.

YEAR: \_\_\_\_\_

Month	Gallons of No. 6 oil or equivalent burned	Gallons of No. 6 oil or equivalent burned	Gallons of No. 6 oil or equivalent burned
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS-FIRED BOILER CERTIFICATION**

Source Name: BorgWarner DTP Inc.  
Source Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
Mailing Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
Part 70 Permit No.: T 035-7410-00020

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Report period

Beginning: \_\_\_\_\_

Ending: \_\_\_\_\_

<u>Boiler Affected</u>	<u>Alternate Fuel</u>	<u>Days burning alternate fuel</u>	
		<u>From</u>	<u>To</u>
Boiler 3	No. 6 fuel oil		
Boiler 3	No. 2 fuel oil		
Boiler 4	No. 6 fuel oil		
Boiler 4	No. 2 fuel oil		
Boiler 5	No. 6 fuel oil		
Boiler 5	No. 2 fuel oil		

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for Part 70 Significant Source and Significant Permit Modifications

#### Source Background and Description

<b>Source Name:</b>	<b>BorgWarner DTP Inc.</b>
<b>Source Location:</b>	<b>5401 Kilgore Avenue, Muncie, Indiana 47304</b>
<b>County:</b>	<b>Delaware</b>
<b>SIC Code:</b>	<b>3714</b>
<b>Operation Permit No.:</b>	<b>T 035-7410-00020</b>
<b>Operation Permit Issuance Date:</b>	<b>September 24, 1998</b>
<b>Significant Source Modification No.:</b>	<b>035-16121-00020</b>
<b>Significant Permit Modification No.:</b>	<b>035-15848-00020</b>
<b>Permit Reviewer:</b>	<b>Edward A. Longenberger</b>

The Office of Air Quality (OAQ) has reviewed a modification application from BorgWarner DTP Inc. relating to the construction and operation of the following emission unit:

One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British thermal units per hour.

#### History

BorgWarner DTP Inc. was issued a Part 70 operating permit on September 24, 1998. On June 14, 2002, BorgWarner DTP Inc. submitted an application to the OAQ requesting to add an additional boiler (Boiler 5) to their existing plant. As part of this modification, BorgWarner will remove the existing 68.75 million Btu per hour boiler, identified as Boiler 2, from the source. The fuel oil input to Boiler 5 will be limited to less than 994,000 gallons per year. The source also requests a name change, from Borg Warner Automotive Diversified Transmission Products Corp., to BorgWarner DTP Inc.

#### Enforcement Issue

There are no enforcement actions pending.

#### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
BLR5	Boiler 5	44.0	3.0	13,500	300

#### Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be

approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 14, 2002.

### Emission Calculations

See pages 1 through 5 of 5 of Appendix A of this document for detailed emissions calculations.

### Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

<b>Pollutant</b>	<b>Potential To Emit (tons/year)</b>
PM	15.4
PM <sub>10</sub>	15.4
SO <sub>2</sub>	121
VOC	1.74
CO	18.0
NO <sub>x</sub>	84.6

<b>HAPs</b>	<b>Potential To Emit (tons/year)</b>
Arsenic	0.0009
Benzene	0.0004
Beryllium	0.0006
Dichlorobenzene	0.0003
Formaldehyde	0.016
Hexane	0.385
Toluene	0.0007
Lead Compounds	0.002
Cadmium Compounds	0.0006

HAPs	Potential To Emit (tons/year)
Chromium Compounds	0.0006
Manganese Compounds	0.001
Mercury Compounds	0.0006
Nickel Compounds	0.0006
Selenium Compounds	0.003
TOTAL	0.412

**Justification for Modification**

The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4), because the modification has a potential to emit of NO<sub>x</sub> and SO<sub>2</sub> of greater than 25 tons per year. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification (SPM 035-15848-00020) in accordance with 326 IAC 2-7-12(d)(1). The Significant Permit Modification will give the source approval to operate the proposed emission unit.

**County Attainment Status**

The source is located in Delaware County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Delaware County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

**Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	greater than 250
PM <sub>10</sub>	greater than 250
SO <sub>2</sub>	greater than 250
VOC	less than 250
CO	greater than 250
NO <sub>x</sub>	greater than 250

- (a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Technical Support Document for the Part 70 Operating Permit (T 035-7410-00020).

**Potential to Emit of Modification After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM <sub>10</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO <sub>x</sub> (tons/yr)
Proposed Modification (Worst Case)	5.24	6.07	39.1	1.36	18.0	41.8
Contemporaneous Increases	-	-	-	-	-	-
Contemporaneous Decreases	0.038	0.150	0.012	0.109	1.66	1.98
Net Emissions	5.20	5.92	39.1	1.25	16.3	39.8
PSD Significant Level	25	15	40	40	100	40

The source has requested that the fuel oil input to the new boiler (Boiler 5) be limited to less than 994,000 gallons per twelve (12) consecutive month period, equivalent to 39.0 tons of SO<sub>2</sub> per year.

The existing boiler, identified as Boiler 2, is being removed as part of this modification. The contemporaneous decreases in emissions shown in the above table represent the actual emissions from Boiler 2, averaged over the last two (2) years (2000 and 2001). There were no other creditable

increases or decreases in the last five (5) years.

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Federal Rule Applicability

- (a) This significant modification does not involve a pollutant-specific emissions unit with the potential to emit after control in an amount equal to or greater than one hundred (100) tons per year. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.
- (b) The one (1) boiler, identified as Boiler 5, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc), since the boiler will be constructed after June 9, 1989, and has a maximum design heat input capacity less than 100 million British thermal units per hour, but greater than 10 million British thermal units per hour.
  - (a) Pursuant to 40 CFR 60.42c(d), no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 0.5 lb/MMBtu heat input or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The owner or operator shall keep records pursuant to 40 CFR 60.48c.
  - (b) Pursuant to 40 CFR 60.43c(c), no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases which exhibit 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.

### State Rule Applicability - Individual Facilities

#### 326 IAC 2-2 (Prevention of Significant Deterioration)

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. The source has requested that the fuel oil input to the new boiler (Boiler 5) be limited to less than 994,000 gallons per twelve (12) consecutive month period, equivalent to 39.0 tons of SO<sub>2</sub> per year.

#### 326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) boiler, identified as Boiler 5, to be constructed in 2002, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, rated at 48.8 million British thermal units per hour, must comply with the requirements of 326 IAC 6-2-4. The emission limitation is based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 48.8 million British thermal units per hour boiler, is 186.3 million British thermal units per hour.

$$Pt = 1.09/(186.3)^{0.26} = 0.280 \text{ lb/mmBtu heat input}$$

Based on Appendix A, the worst-case potential PM emission rate is:

$$15.4 \text{ ton/yr} \times (2000 \text{ lbs/ton} / 8760 \text{ hrs/yr}) = 3.52 \text{ lb/hr}$$
$$(3.52 \text{ lb/hr} / 48.8 \text{ mmBtu/hr}) = 0.072 \text{ lb PM per mmBtu}$$

The PM emissions from the one (1) boiler (Boiler 5) are 0.072 pounds of PM per million British thermal units, which is less than the allowable of 0.280 pounds per million British thermal units. Therefore, the one (1) boiler is in compliance with this rule.

#### 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

The one (1) boiler, identified as Boiler 5, firing No. 2 or No. 6 oil as backup fuels, rated at 48.8 million British thermal units per hour, is subject to the requirements of 326 IAC 7-1.1, since the potential to emit of SO<sub>2</sub> is greater than twenty-five (25) tons per year.

- (a) Pursuant to this rule, SO<sub>2</sub> emissions from the combustion of No. 2 distillate fuel oil shall not exceed 0.5 pounds per million British thermal units heat input (the equivalent of 0.5 percent sulfur content at a higher heating value of 140,000 British thermal units per gallon and a maximum heat input rate of 48.8 million British thermal units per hour).
- (b) Pursuant to this rule, SO<sub>2</sub> emissions from the combustion of No. 6 residual oil shall not exceed 1.6 pounds per million British thermal units heat input (the equivalent of 1.529 percent sulfur content at a higher heating value of 150,000 British thermal units per gallon and a maximum heat input rate of 48.8 million British thermal units per hour).

However, 40 CFR 60.40c, Subpart Dc, states that SO<sub>2</sub> emissions from the combustion of oil shall not exceed 0.5 pounds per million British thermal units heat input or, as an alternative, the Permittee shall not combust oil in Boiler 5 that contains greater than 0.5 weight percent sulfur. Therefore, Boiler 5 shall comply with the SO<sub>2</sub> limit of 0.5 pounds per million British thermal units heat input, or combust oil that contains no more than 0.5 weight percent sulfur, even when burning No. 6 oil.

#### 326 IAC 7-2-1 (Sulfur Dioxide Compliance: reporting and methods to determine compliance)

Reports of calendar month or annual average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate shall be provided upon request to the Office of Air Quality.

## Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to the proposed boiler (Boiler 5) are as follows:

Visible emissions notations of the boiler stack exhaust (BLR5) shall be performed once per shift during normal daylight operations when burning No. 2 or No. 6 oil. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the boiler (Boiler 5) must operate properly to ensure compliance with 326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983), 326 IAC 5-1 (Opacity), 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations), and 326 IAC 2-7 (Part 70).

## Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (1) ~~Two (2) Three (3)~~ 68.75 million Btu per hour boilers, identified as ~~Boiler 2~~, Boiler 3 and Boiler 4, using natural gas, No. 6 residual oil and No. 2 distillate oil, for fuel, with no control, ~~and Boiler 2 exhausting to stack 79~~ and Boilers 3 and 4 exhausting to stack 80.
- (2) **One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British**

**thermal units per hour.**

- (32) One (1) Diesel fueled internal combustion engine-driven test cell, with a capacity of 400 Horsepower, identified as Dynos-2, and exhausting to stack 192.
- (43) Three (3) gasoline fueled internal combustion engine-driven test cells, with a combined capacity of 963 Horsepower, identified together as Dynos-1, and exhausting to stacks 194 and 202.

**SECTION D.1 FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

- (1) **Two (2) ~~Three (3)~~ 68.75 million Btu per hour boilers, identified as ~~Boiler 2, Boiler 3 and Boiler 4,~~ using natural gas, No. 6 residual oil and No. 2 distillate oil, for fuel, with no control, ~~and Boiler 2 exhausting to stack 79 and Boilers 3 and 4 exhausting to stack 80.~~**
- (2) **One (1) boiler, identified as Boiler 5, firing natural gas as primary fuel, firing No. 2 or No. 6 oil as backup fuels, exhausting to stack BLR5, rated at: 48.8 million British thermal units per hour.**

**(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.1.1 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 2-7] [326 IAC 2-2] [40 CFR 52.21]**

- (a) The input of No. 6 oil to the one (1) boiler, identified as Boiler 5, shall be limited to less than 994,000 gallons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month, which is equivalent to SO<sub>2</sub> emissions of less than 39.0 tons per year.
- (b) For purposes of determining compliance based on SO<sub>2</sub> emissions, each gallon of No. 2 oil shall be equivalent to 0.9045 gallons of No. 6 oil.
- (c) Compliance with the limit in (a) renders the requirements of 326 IAC 2-2 not applicable.

**D.1.2 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]**

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the one (1) boiler, identified as Boiler 5, except when otherwise specified in 40 CFR 60 Subpart Dc.

**D.1.34 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]**

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) the SO<sub>2</sub> emissions from the **two (2) ~~three (3)~~ 68.75 MMBtu per hour boilers shall not exceed:**

- (a) One and six-tenths (1.6) pounds per MMBtu heat input when using No. 6 residual oil for fuel; and
- (b) Five-tenths (0.5) pounds per MMBtu heat input when using No. 2 distillate oil for fuel.

**D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 12-1] [40 CFR 60.40c]**

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units):

- (a) The SO<sub>2</sub> emissions from the one (1) boiler, identified as Boiler 5, when combusting fuel oil, shall not exceed five tenths (0.5) pounds per million Btu heat input; or
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

**D.1.52 Particulate Matter (PM) [326 IAC 6-2-3]**

Pursuant to 326 IAC 6-2-3 (Particulate Emissions Limitations for sources of Indirect Heating), the PM emissions from Boilers 2, 3 and 4, shall be limited to 0.295 pounds per million Btu.

**D.1.6 Particulate Matter (PM) [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983), the PM emission rate from the one (1) boiler, identified as Boiler 5, shall not exceed 0.280 pounds per million British thermal units, based on a total source heat input capacity of 186.3 million British thermal units per hour.

The emission limitation is based on the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

**Pt = Pounds of particulate matter emitted per million British thermal units (lb/mmBtu) heat input**

**Q = Total source maximum operating capacity rating in million British thermal units per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.**

**D.1.7 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.40c]**

Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc), the Permittee, when burning No. 2 or No. 6 oil, shall not cause to be discharged into the atmosphere from Boiler 5 any gases which exhibit 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

**Compliance Determination Requirements**

**D.1.83 Testing Requirements [326 IAC 2-7-6(1),(6)][40 CFR 60.45c]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the SO<sub>2</sub> limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.45c, Subpart Dc), within 180 days of the date that fuel oil is first combusted in the boiler, the Permittee shall perform an initial compliance test to determine compliance with the opacity limitation for the one (1) boiler, identified as Boiler 5, when combusting fuel oil. Testing shall be conducted in accordance with 40 CFR 60.8, 40 CFR 60.45c, and Section C- Performance Testing.**

**D.1.94 Sulfur Dioxide Emissions and Sulfur Content**

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Compliance **for the two (2) boilers, identified as Boiler 3 and Boiler 4**, shall be determined utilizing one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur content does not exceed 1.52 percent by weight for No. 6 fuel oil and 0.5 percent by weight for No. 2 fuel oil by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the **two (2) three (3)** 68.75 MMBtu per hour boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

**D.1.10 Sulfur Dioxide Emissions and Sulfur Content**

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**Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance for the one (1) boiler, identified as Boiler 5, utilizing one of the following options:**

- (a) **Providing vendor analysis of fuel delivered, if accompanied by a certification; or**
- (b) **Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.**
  - (1) **Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and**
  - (2) **If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.**

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.1.115 Visible Emissions Notations**

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- (a) **Daily** Visible emission notations of the boiler stack exhausts shall be performed **once per**

**shift** during normal daylight operations when any boiler is combusting No. 6 or No. 2 fuel oil when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

##### **D.1.126 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1, **D.1.3 and D.1.4**, the Permittee shall maintain records in accordance with (1) through (6) below. **Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit for Boiler 5 applies at all times including periods of startup, shutdown, and malfunction.**

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage **of each fuel used** since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.115, the Permittee shall maintain records of **daily once per shift** visible emissions notations when combusting No. 6 or No. 2 fuel oil in any boiler.

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.13 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 in any compliance period when No. 6 or No. 2 fuel oil was combusted, and the natural gas boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) **A certification, signed by the responsible official, that certifies all of the fuels combusted during the period. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34);**
- (c) **The semi-annual natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported.**

#### D.1.14 NSPS Reporting Requirement

Pursuant to the New Source Performance Standards (NSPS), Part 60.40c, Subpart Dc, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- (a) **Commencement of construction date (no later than 30 days after such date);**
- (b) **Actual start-up date (within 15 days after such date); and**
- (c) **Date of performance testing (at least 30 days prior to such date), when required by a condition elsewhere in this permit.**

Reports are to be sent to:

**Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015**

**The application and enforcement of these standards have been delegated to the IDEM OAQ. The requirements of 40 CFR Part 60 are also federally enforceable.**

On January 1, 2001, the IDEM Office of Air Management changed to the Office of Air Quality. Therefore, all references to Office of Air Management or OAM have changed to **Office of Air Quality or OAQ**. As the source has requested, all references to Borg Warner Automotive Diversified Transmission Products Corp., are changed to **BorgWarner DTP Inc.** All references to Boiler 2 are removed from the report forms, Boiler 5 is added to the semi-annual natural gas-fired boiler certification form, and the following quarterly report form is added to the Part 70 Operating Permit:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: BorgWarner DTP Inc.  
 Source Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
 Mailing Address: 5401 Kilgore Ave, Muncie, Indiana 47302  
 Part 70 Permit No.: T 035-7410-00020  
 Facility: Boiler 5  
 Parameter: Total No. 6 fuel oil input (SO<sub>2</sub>)  
 Limit: Less than 994,000 gallons, or equivalent, per twelve (12) consecutive month period, equivalent to SO<sub>2</sub> emissions of less than 39.0 tons per year. For purposes of determining compliance based on SO<sub>2</sub> emissions, each gallon of No. 2 oil shall be equivalent to 0.9045 gallons of No. 6 oil.

YEAR: \_\_\_\_\_

Month	Gallons of No. 6 oil or equivalent burned	Gallons of No. 6 oil or equivalent burned	Gallons of No. 6 oil or equivalent burned
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this month.
- 9 Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title/Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## **Conclusion**

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No.: **035-16121-00020** and the attached proposed Part 70 Significant Permit Modification No.: **035-15848-00020**.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100**

**Company Name: BorgWarner DTP Inc.  
Address City IN Zip: 5401 Kilgore Avenue, Muncie, Indiana 47304  
SSM: 035-16121  
Pit ID: 035-00020  
Reviewer: Edward A. Longenberger  
Date: June 14, 2002**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
48.8000	427.49

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.406	1.62	0.128	21.4	1.18	18.0

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
MM BTU/HR <100  
HAPs Emissions**

**Company Name: BorgWarner DTP Inc.  
Address City IN Zip: 5401 Kilgore Avenue, Muncie, Indiana 47304  
SSM: 035-16121  
Pit ID: 035-00020  
Reviewer: Edward A. Longenberger  
Date: June 14, 2002**

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.49E-04	2.56E-04	1.60E-02	3.85E-01	7.27E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	1.07E-04	2.35E-04	2.99E-04	8.12E-05	4.49E-04	0.403

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#2 Fuel Oil**

**Company Name: BorgWarner DTP Inc.**  
**Address City IN Zip: 5401 Kilgore Avenue, Muncie, Indiana 47304**  
**SSM: 035-16121**  
**Plt ID: 035-00020**  
**Reviewer: Edward A. Longenberger**  
**Date: June 14, 2002**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur 0.5
48.8	3053.48571	

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.0	71 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	3.05	108	30.5	0.519	7.63

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See page 4 for HAPs emission calculations.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#2 Fuel Oil**  
**HAPs Emissions**

**Company Name:** BorgWarner DTP Inc.  
**Address City IN Zip:** 5401 Kilgore Avenue, Muncie, Indiana 47304  
**SSM:** 035-16121  
**Plt ID:** 035-00020  
**Reviewer:** Edward A. Longenberger  
**Date:** June 14, 2002

HAPs - Metals

Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	8.55E-04	6.41E-04	6.41E-04	6.41E-04	1.92E-03

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05	Total HAPs
Potential Emission in tons/yr	6.41E-04	1.28E-03	6.41E-04	3.21E-03	1.05E-02

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#2 Fuel Oil**

**Company Name: BorgWarner DTP Inc.**  
**Address City IN Zip: 5401 Kilgore Avenue, Muncie, Indiana 47304**  
**SSM: 035-16121**  
**Plt ID: 035-00020**  
**Reviewer: Edward A. Longenberger**  
**Date: June 14, 2002**

Heat Input Capacity  
MMBtu/hr

48.8

**Limited Throughput**  
kgals/year  
  
**994**

S = Weight % Sulfur

0.5

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.0	71 <i>(142.0S)</i>	20.0	0.34	5.0
Potential Emission in tons/yr	0.994	35.3	9.94	0.169	2.49

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See page 6 for HAPs emission calculations.

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#2 Fuel Oil**  
**HAPs Emissions**

**Company Name: BorgWarner DTP Inc.**  
**Address City IN Zip: 5401 Kilgore Avenue, Muncie, Indiana 47304**  
**SSM: 035-16121**  
**Plt ID: 035-00020**  
**Reviewer: Edward A. Longenberger**  
**Date: June 14, 2002**

HAPs - Metals

Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	8.55E-04	6.41E-04	6.41E-04	6.41E-04	1.92E-03

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05	Total HAPs
Potential Emission in tons/yr	6.41E-04	1.28E-03	6.41E-04	3.21E-03	1.05E-02

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#6 Fuel Oil**

**Company Name:** BorgWarner DTP Inc.  
**Address City IN Zip:** 5401 Kilgore Avenue, Muncie, Indiana 47304  
**SSM:** 035-16121  
**Plt ID:** 035-00020  
**Reviewer:** Edward A. Longenberger  
**Date:** June 14, 2002

Heat Input Capacity                      Potential Throughput  
MMBtu/hr                                      kgals/year                      S = Weight % Sulfur

48.80    3075.45324                      0.5

Emission Factor in lb/kgal	Pollutant				
	PM**	SO2	NOx	VOC	CO
10 <i>*see below</i>	78.5 (157S)	55.0	1.13	5.0	
Potential Emission in tons/yr	15.4	121	84.6	1.74	7.69

\*Particulate Matter emission factor for #6 fuel oil is 10.0 lb/kgal

\*\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.

1 gallon of #5 Fuel oil has a heating value of 139,000 Btu

1 gallon of #6 Fuel oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.139 MMBtu

Emission Factors are from AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03, 1-02-004-02/03, and 1-03-004-04)

(AP-42 Supplement E 9/98)

Emission (tons/yr) = Throughput (kgals/year) x Emission Factor (lb/kgal)/2,000 lb/ton

No data are available for HAPs emissions calculations

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#6 Fuel Oil**

**Company Name:** BorgWarner DTP Inc.  
**Address City IN Zip:** 5401 Kilgore Avenue, Muncie, Indiana 47304  
**SSM:** 035-16121  
**Plt ID:** 035-00020  
**Reviewer:** Edward A. Longenberger  
**Date:** June 14, 2002

Heat Input Capacity  
MMBtu/hr

**Limited Throughput**  
kgals/year  
  
**994**

S = Weight % Sulfur  
0.5

48.80

Emission Factor in lb/kgal	Pollutant				
	PM**	SO2	NOx	VOC	CO
	10.0	78.5	55.0	1.13	5.0
	<i>*see below</i>	(157S)			
Potential Emission in tons/yr	4.97	39.0	27.3	0.562	2.49

\*Particulate Matter emission factor for #6 fuel oil is 10.0 lb/kgal

\*\*PM emission factor is filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.

1 gallon of #5 Fuel oil has a heating value of 139,000 Btu

1 gallon of #6 Fuel oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.139 MMBtu

Emission Factors are from AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03, 1-02-004-02/03, and 1-03-004-04)

(AP-42 Supplement E 9/98)

Emission (tons/yr) = Throughput (kgals/year) x Emission Factor (lb/kgal)/2,000 lb/ton

No data are available for HAPs emissions calculations